

In the claims:

Please cancel claims ~~1-9~~¹⁻³, and substitute therefore claims ~~10-18~~⁴⁻¹² as follows:

Rule 1.126
~~10~~⁴. A method for transmitting user data elements from a Digital Subscriber Line (DSL) transmitter to a Digital Subscriber Line receiver, wherein

- a. said user data elements modulate at least one carrier;
- b. a pilot carrier used for synchronisation between said DSL transmitter and said DSL receiver is multiplexed with said at least one carrier;
- c. said at least one carrier and said pilot carrier are transmitted over a transmission medium interconnecting said DSL transmitter and said DSL receiver,

characterized in that said pilot carrier is modulated with part of said user data elements for enlarging effective bandwidth for transport of said user data elements.

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~~11~~⁴. A method of claim ~~10~~⁴ further characterized in that said user data elements are scrambled before modulating said at least one carrier and said pilot carrier therewith for increasing the random nature of said user data elements.

6
~~12~~. A Digital Subscriber Line (DSL) transmitter, adapted to transmit user data elements to a Digital Subscriber Line receiver via a transmission medium, said DSL transmitter comprising:

- a. a Discrete Multi Tone (DMT) modulator to an input of which said user data elements are applied, said DMT modulator being adapted to modulate said user data elements on at least one carrier, and to multiplex said at least one carrier with a pilot carrier used for synchronisation between said DSL transmitter and said DSL receiver; and
- b. a line interface, coupled between an output of said DMT modulator and an input of said transmission medium, and adapted to condition said at least one carrier and said pilot carrier to be transmitted over said transmission medium,

characterized in that said DMT modulator is further adapted to modulate said pilot carrier with part of said user data elements for enlarging effective bandwidth for transport of said user data elements.

⁷
~~13~~. A Digital Subscriber Line (DSL) transmitter according to claim ⁶~~12~~, further characterised in that said DSL transmitter comprises a scrambler adapted to scramble said user data elements for increasing the random nature thereof, and to apply the scrambled user data elements to said DMT modulator.

⁸
~~14~~. A Digital Subscriber Line (DSL) transmitter according to claim ⁶~~12~~, further characterized in that said DSL transmitter is an Asymmetric Digital Subscriber Line (ADSL) transmitter.

⁹
~~15~~. A Digital Subscriber Line (DSL) transmitter according to claim ⁶~~12~~, further characterized in that said DSL transmitter is a Very High Speed Digital Subscriber Line (VDSL) transmitter.

¹⁰
~~16~~. A Digital Subscriber Line (DSL) receiver, adapted to receive user data elements transmitted thereto by a Digital Subscriber Line transmitter via a transmission medium, said DSL receiver comprising:

- a. a line interface, coupled to an output of said transmission medium and adapted to condition a signal transferred over said transmission medium to be applied to components of said DSL receiver; and
- b. a Discrete Multi Tone (DMT) demodulator, an input of which is coupled to an output of said line interface, said DMT demodulator being adapted to demultiplex in said signal a pilot carrier from at least one further carrier, to demodulate a first part of said user data elements from said at least one further carrier, to demodulate a second part of said user data elements from said pilot carrier and to use the demodulated pilot carrier for synchronisation, said pilot carrier enlarging effective bandwidth for transport of said user data elements.

¹¹
~~17~~. A Digital Subscriber Line (DSL) receiver according to claim ¹⁰~~16~~,
characterized in that said DSL receiver is an Asymmetric Digital Subscriber Line
(ADSL) receiver.

Amend
¹²
~~18~~. A Digital Subscriber Line (DSL) receiver according to claim ¹⁰~~16~~,
characterized in that said DSL receiver is a Very High Speed Digital Subscriber Line
(VDSL) receiver.

In the Specification:

Please amend the specification, as shown in the attached Exhibit B.